

and the general influences affecting climate. This section is, of necessity, more or less dogmatic. Having laid this foundation, the physiology of climate suggests certain general considerations, such as the influence of temperature on metabolism, the action of atmospheric humidity, of atmospheric pressure, and of light, and finally the reactions of the organism to various climatic influences. The factors of climate and the physiological influence of these factors having been analyzed, the next step is to determine what the final result of various combinations will be. The classification which the author adopts is based on the heat demand (or demand for tissue change), which may be excessively small, small, medium, large, or excessive. It is pointed out that from this standpoint different positions in a geographical division may at different seasons offer more than one type of climate. Geographically, Egypt, South Africa, Algiers, Madeira and the Canaries, the Mediterranean, the British Isles, the United States, the Alps, and the ocean are considered. In the preparation of this section much reliable testimony has been collected and thoroughly sifted. Baths and mineral waters are amply treated. Of the waters used internally the depurative group is divided into (1) abluent, (2) stomachic and diuretic, and (3) mild intestinal stimulants, while the toxic and reconstituent group comprise the (1) hematogenic and (2) alternative and nervine. The final chapter in this part is upon the whey cure and the grape cure on which formerly considerable was written. The application of all the foregoing, the therapeutics, is found under various disease headings, and the book ends with some general remarks which we regard as so important that they should be read not only with reference to this, but to any other work upon this subject. These we may briefly condense in stating that the name of the disease never suffices to indicate the appropriate remedy, that there must be a general physiological stock-taking, and when this is done our efforts must, in the main, be directed toward restoring disordered function and the malady must be traced to its source. Further, extra medical points must be considered, as financial conditions, mental states, suitability of environment, etc. We commend this volume to our readers as one which will command their attention to their profit and their interest to their more scientific information.

R. W. W.

A MANUAL OF CHEMISTRY, INORGANIC AND ORGANIC. By ARTHUR P. LUFF, M.D., F.R.C.P., and FREDERICK JAMES M. PAGE, B.Sc. (Lond.), F.I.C., Associate of the Royal School of Mines. Third edition. Chicago: W. T. Keener & Co., 1905.

THIS manual is not new, having been first published in 1892 and having gone through a number of editions and rewritings until the

edition of 1905 is practically a new book; it has the added value of years of usage and the accumulation of new material, bringing it up to date.

The work is intended as a guide to the study of chemistry for students in medicine. The author has accomplished his purpose with remarkable success. The book is divided into six parts, of which the first, entitled "Introduction to the Study of Chemistry," deals with the fundamental principles and laws underlying the science, and treats of such things as elements, symbols, molecules, atoms, quantivalence, molecular and atomic theories, use of symbols and formulæ, and the writing of chemical equations. The laws of chemical combination and the laws of combining of gases by volume are also treated. Part II consists of a fairly comprehensive treatment of the non-metallic elements and their compounds. Part III treats of the metallic elements and their compounds.

Part IV is devoted to a study of organic chemistry. The ground is remarkably well covered in the 146 pages devoted to it. This is a most important section of the book. The domain of this branch of the science is vast and reference-books on the subject are necessarily very large. We are given here a condensed treatment of the subject, which is most admirable. The physical methods employed are described in sufficient detail and the various classes are treated in a way quite sufficient to meet the need of the medical student. This also contains descriptions of such modern drugs as aspirin, heroin, mesotan, veronal, etc. The alkaloids, such as morphine, codeine, strychnine, etc., are also described and tests given for their presence.

Part V is devoted to theory, stoichiometrical problems being plainly explained, as well as problems involving volume calculations of gases, correcting for temperature and pressure, and determining the weight of a liter of gas, as well as various miscellaneous problems. A table of the equivalents of the chief weights and measures, including the metric, is given.

Part VI is concerned with the preparations of typical salts, and contains tables of qualitative analysis for the various groups of metals as well as examinations for the commonly occurring acids. Blow-pipe tests are also given. This section is completed with a brief description of the preparation and use of normal solutions in volumetric analysis. The chief indicators are given, with statements as to the action of certain substances which affect them. Practical examples are given of the volumetric analysis of various materials.

Although the book is a remarkably comprehensive one there are of course certain occasional omissions, as for example the preparation of oxygen gas by the action of water on sodium dioxide. The use of such radicals as Am and Cy is certainly to be depre-

ciated, although the student will probably know that they stand for "ammomiun" and "cyanogen" respectively.

The book can be recommended to the medical student as a most valuable and comprehensive treatment of the inorganic and the organic branches of the science.

E. A. C.

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A TEXT-BOOK OF MEDICAL CHEMISTRY AND TOXICOLOGY. By JAMES W. HOLLAND, A.M., M.D., Professor of Medical Chemistry and Toxicology, and Dean, Jefferson Medical College, Philadelphia. Pp. 592. Philadelphia and London: W. B. Saunders & Co., 1905.

THE field covered in this handsome volume embraces both the inorganic and the organic domain of chemistry, with especial attention to toxicology in every case where the substance under consideration has toxic properties. Not only is the toxic dose given, but the antidote is stated and that most important subject to the practical man, the so-called "incompatibilities," are fully developed.

The first sixty pages are devoted to physics in its relation to the sister science of chemistry. A study of the principal elements, both metallic and non-metallic, then follows, with the chief compounds that they form. Chemical theory is brought in at suitable places and the principles and most important laws are clearly explained and thoroughly and adequately treated. The most recent theories are described. Fully half of the contents of the book is devoted to the branch of organic chemistry. A large number of compounds are fully described and the medical properties are particularly noticed. The very handsome colored plates form a distinctive feature of the book. These show the principal chemical tests and the shade of color is very accurate in each case.

E. A. C.

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THE PREVENTION OF SENILITY AND A SANITARY OUTLOOK. By SIR JAMES CRICHTON-BROWNE. London and New York: Macmillan & Co., 1905.

THE first of these two addresses, the reading of which makes one wish he could have been present at their delivery, deals with a subject of universal interest that has recently been brought into public discussion by the unfortunate misconception of Professor Osler's famous chloroform joke. In his happiest manner the author takes exception to the claim that most of the efficient work of the world has been accomplished by men under forty years of